

# NOVEL MULTI-STATE MEMORY

## ABSTRACT

Maximized multi-state compaction and more tolerance in memory state behavior is achieved through a flexible, self-consistent and self-adapting mode of detection, covering a wide dynamic range. For high density multi-state encoding, this approach borders on full analog treatment, dictating analog techniques including A to D type conversion to reconstruct and process the data. In accordance with the teachings of this invention, the memory array is read with high fidelity, not to provide actual final digital data, but rather to provide raw data accurately reflecting the analog storage state, which information is sent to a memory controller for analysis and detection of the actual final digital data.